

Attorney Docket No.: 051480-5016  
Application No.: 09/622,696  
Page 2

under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 4,214,472 to Maxwell et al. (Maxwell). And claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 5,024,534 to Matsubara et al. (Matsubara). These rejections are respectfully traversed in view of the following comments.

The invention concerns a control system for an internal combustion engine with a motor control unit and a sensor having an interface with the motor control unit. The interface must be sufficiently distant from heat-producing parts of the internal combustion engine, and at the same time the connection to the motor control unit cannot be too long so as to ensure that very low measurement currents can be detected.

Applicant's evaluation unit -- for digitizing measurements made by the sensor -- is integrated into the interface at a distance both from the sensor and from the control unit that allows extremely low measurement currents to also be reliably transmitted digitally to the control unit. The analyzer unit and the sensor then form an independent functional unit connected by a connection line, with this unit being able to communicate with the control unit using digital signals over a bus.

Electromagnetic disturbance occurring in the engine compartment cannot override or distort even very low measurement currents due to the digital transmission levels on the transmission path to the motor control unit. Thus the volume range for measurement signals to be transmitted is drastically increased. This makes it possible for an internal combustion engine to be controlled or regulated with great precision, which allows compliance with very restrictive emission control limits.

In contrast to Applicant's invention, Suzuki is directed to a device for detecting the oxygen concentration in an internal combustion engine. Suzuki's digitizer 68 is a part of analyzer circuit 25 and is integrated into this circuit. The digitizer is not integrated into the interface and the interface has no connecting line for transmission of the digitized measurements from the interface to the analyzer circuit.

As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegual Bros. v. Union Oil Co. Of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Thus, for at least the above reasons, Suzuki fails to anticipate the combination of features recited

Attorney Docket No.: 051480-5016  
Application No.: 09/622,696  
Page 3

in Applicant's independent claim 1. Accordingly, it is respectfully submitted that claim 1 is allowable and that the rejection of independent claim 1 should be withdrawn.

It is respectfully submitted that claim 2, which depends from claim 1, is also patentable over Suzuki for at least the same reasons as claim 1, and because Suzuki's digitizer is not integrated into a connector in Suzuki.

Ohba is cited in the Office Action as allegedly teaching that it is known to provide a sensor interface circuit with a conductive casing for shielding. Even if Suzuki and Ohba could be combined, a proposition that Applicant does not accept, the combination would still not overcome the above deficiencies of Suzuki. Moreover, motor control units and analyzer circuits (e.g., 25 in Suzuki's Figure 2) are generally placed in a shielded housing. This is in contrast to Applicant's claim 3, which recites *inter alia*, that the interface is arranged outside the control unit and its housing.

Similarly, Frankeny is cited in the Office Action as allegedly teaching that it is known to provide a circuit casing with a cooling flange, Maxwell is cited in the Office Action as allegedly teaching that it is known to provide a sensor assembly with waterproof connecting means, and Matsubara is cited in the Office Action as allegedly teaching that it is known to provide a sensor interface circuit with a shielded connecting line. However, even if Frankeny, Maxwell, or Matsubara could be combined, a proposition that Applicant does not accept, none of these combinations would overcome the above deficiencies of Suzuki.

Claims 2-16 depend from independent claim 1, and therefore are allowable for at least the same reasons as claim 1, as well as for the additional features recited in the dependent claims. Thus, Applicants respectfully request that the rejection of the dependent claims also be withdrawn and the claims allowed.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of the application and timely allowance of the pending claims.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution of the application.

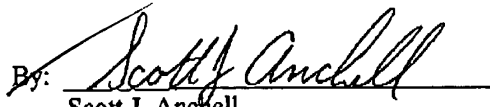
**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this

Attorney Docket No.: 051480-5016  
Application No.: 09/622,696  
Page 4

application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required,  
including any required extension of time fees, or credit any overpayment to Deposit Account  
50-0310. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR  
EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,  
MORGAN, LEWIS & BOCKIUS LLP

Dated: 19 April 2002

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